

R E M A R K S

Careful review and examination of the subject application are noted and appreciated.

The present invention concerns an apparatus comprising (i) a first circuit configured to generate a reference output voltage in response to a plurality of reference voltages and (ii) a second circuit configured to generate an output voltage in response to a comparison between the reference output voltage and an unknown voltage. The output voltage produced includes accurately controlled hysteresis.

SUPPORT FOR CLAIM AMENDMENTS

Support for the amendments to the claims can be found in FIG. 2, on page 4, lines 13-15, and on page 11, lines 3-13, of the specification. As such, no new matter has been added.

CLAIM REJECTIONS UNDER 35 U.S.C. §102

The rejection of claims 1, 2 and 13 under 35 U.S.C. §102 as being anticipated by Giordano (US 4,654,545) has been obviated by appropriate amendment and should be withdrawn.

Giordano discloses an overvoltage comparator (Title). In contrast, the present invention claims an apparatus comprising (i) a first circuit configured to generate a reference output voltage in response to a plurality of reference voltages and (ii) a second

circuit configured to generate an output voltage in response to a comparison between the reference output voltage and an unknown voltage. The output voltage produced includes accurately controlled hysteresis. Giordano does not disclose or suggest such an apparatus, as presently claimed.

In particular, the assertion that Giordano discloses a first circuit configured to generate a reference output voltage in response to a plurality of reference voltages does not support a prima facie case of anticipation. The voltages identified in the Office Action as reference voltages in Giordano are not the same as the plurality of reference voltages of the present invention. Such identified reference voltages in Giordano only include the voltage V_{in} of FIG. 2, which can range from 3 to 17.5 volts. The voltage V_{in} of Giordano is not the same as the "plurality of reference voltages" as in claim 1 of the present invention. The voltage V_{in} of Giordano is the circuit supply voltage. Thus, Giordano appears to only have one reference voltage, not a plurality of reference voltages, as presently claimed.

The assertion in the Office Action that Giordano discloses a second circuit configured to generate an output voltage in response to an unknown voltage and that the output voltage comprises accurately controlled hysteresis is also not technically accurate. In particular, the ground node in FIG. 1 of Giordano was suggested to be the same as the unknown voltage, as presently

claimed. One skilled in the art would understand that an unknown voltage is voltage having a level that is unknown. In contrast, one skilled in the art would understand that a ground signal is a known voltage level comprising a known supply reference level. Circuit designs could not effectively operate if the ground node were treated as an "unknown" level. Accordingly, the ground node of Giordano is not the same as the unknown voltage, as presently claimed. Further, while the circuit of Giordano does include hysteresis, Giordano is silent regarding an "accurately controlled hysteresis" within the output voltage, as presently claimed.

Accordingly, Giordano does not disclose or suggest several of the elements of the claimed invention. Therefore, the presently claimed invention is fully patentable over the cited reference and the rejection should be withdrawn.

Furthermore, newly presented claim 21 incorporates what is believed to be the allowable matter of claim 8. Claim 21 provides that the claimed first circuit includes a summation circuit configured to control a voltage reference circuit in response to signals from a process compensation circuit and a reference circuit. Accordingly, claim 21 is believed to be allowable over the cited references.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claims 1-7 and 9-20 under 35 U.S.C. §103 as being unpatentable over Kimura et al. (US 6,281,828) in view of Stakely et al. (US 5,122,680) has been obviated by appropriate amendment and should be withdrawn.

Kimura discloses an analog/digital converter apparatus (Title). Stakely discloses a precision hysteresis circuit (Title). The Office Action admits that Kimura is silent regarding accurately controlled hysteresis. To combine references, a suggestion or motivation to make the combination must be present in the references or available to one of ordinary skill in the art. No motivation is present. In particular, since "hysteresis" is not even mentioned in Kimura, Kimura cannot provide the motivation to combine Kimura with Stakely. Stakely is also lacking in providing a motivation for the combination.

Assuming, *arguendo*, that there was a motivation to combine the Kimura and Stakely references, the references, either alone or in combination, fail to teach or suggest each element of claim 1. In particular, the assertion in the Office Action, that the differential input pair, INN and INP, of FIG. 1 of Stakely are the same as the unknown voltage of the present invention is not correct. Claim 1 includes the limitation of the generation of an output voltage "in response to a comparison between said reference output voltage and an unknown voltage." The unknown voltage, V_{in}

(INN and INP), of Stakely is applied to nodes within resistor stacks and not a comparison between the reference output voltage and the unknown, as presently claimed. Accordingly, Stakely, alone or in combination with Kimura, does not teach or suggest the presently claimed invention. As such, the presently claimed invention is fully patentable over the cited references and the rejection should be allowable.

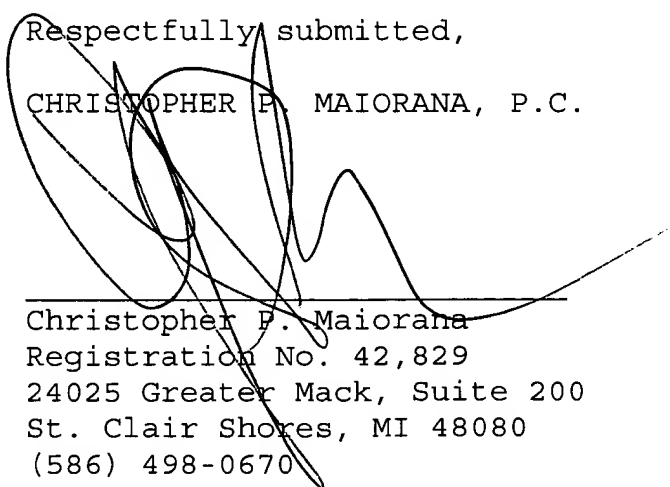
Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicants' representative should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge our office Account No. 50-0541.

Respectfully submitted,

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